

BIOMECHANICAL SYSTEM DEVELOPMENT OF A RESTRAINT SYSTEM

ABSTRACT OF THE DISCLOSURE

Disclosed is a safety restraint design controller for controlling the design of a safety restraint system so that a predetermined desired level of an occupant's response (89) is produced. The controller has a database (85) for storing an occupant restraint factor response model (90). The model (90) interrelates at least one predetermined restraint factor (88) with the occupant response (89), the restraint factors having a level that is indicative of setting values for controlling the safety restraint design. A database engine connected to the database (85) determines a level for the occupant response (89) based upon the model and upon a first level of the restraint factors. An optimizer is connected to the database engine for determining a second level of the restraint factors (88), which produces the desired level of the occupant response based upon the desired level of the occupant response (89) from the database engine; whereby the safety restraints design is controlled based upon the determined second level of the restraint factors that produces the desired level of the safety response.